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FIG. 2(a)

NO DETECTION VOLTAGE APPLIED

SECTION 1 SECTION 2

CARRIER

Vur

Vvr

Pu

Pv

Pw

t3

t4

t5

FIG. 2(b)

P1

t1

t2

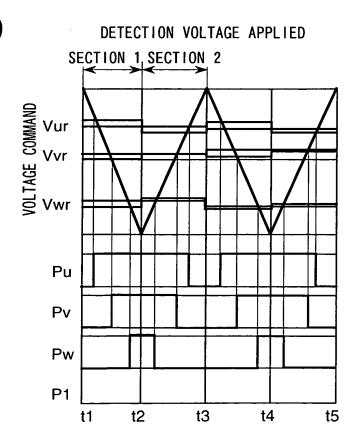


FIG. 3

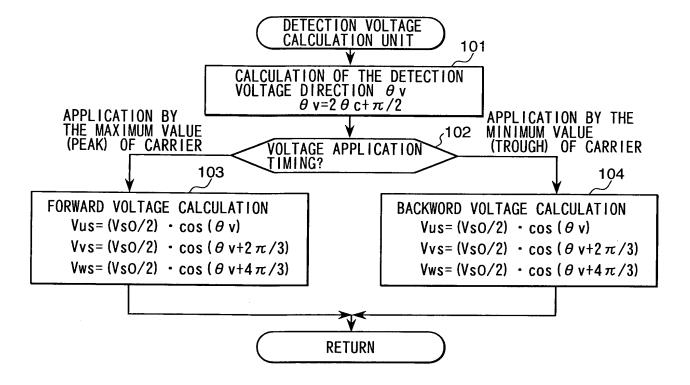
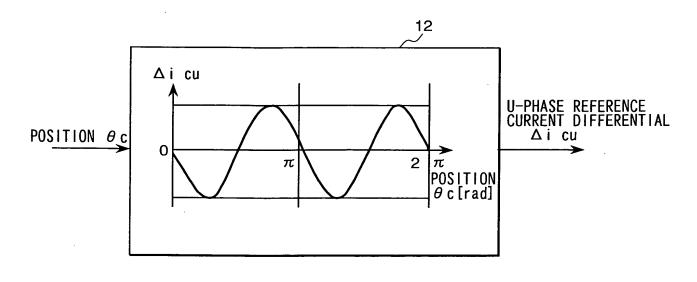


FIG. 4



## FIG. 5

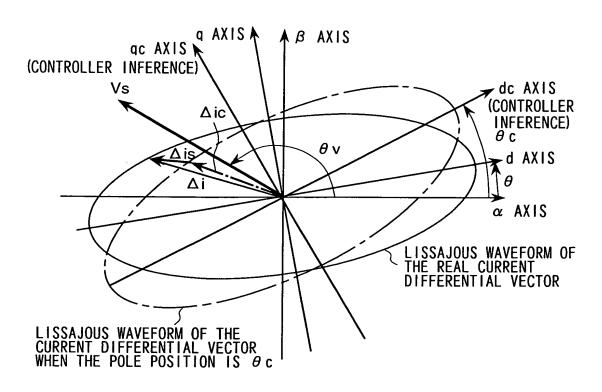
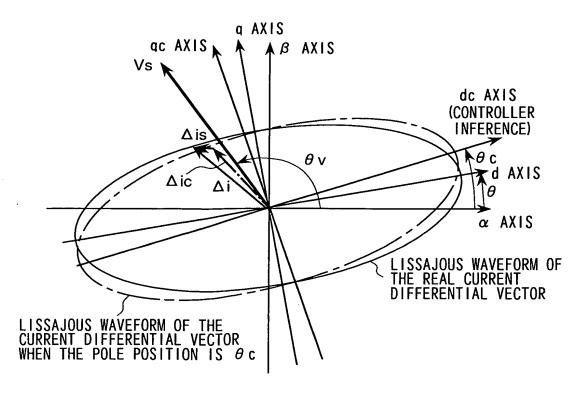


FIG. 6



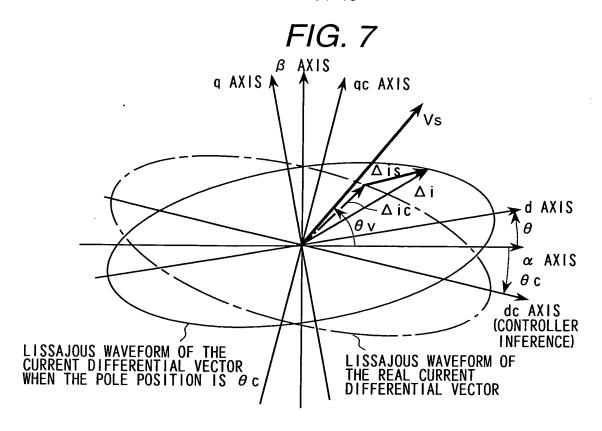
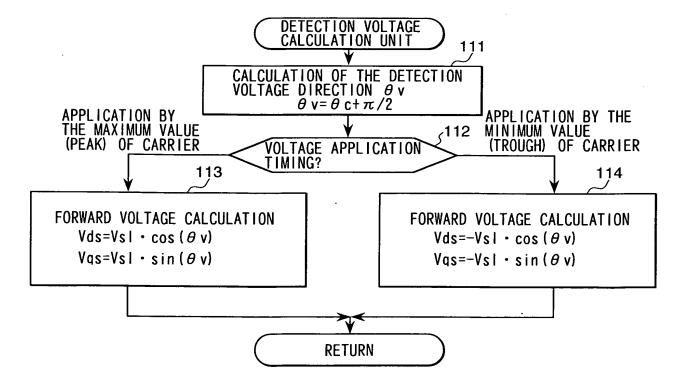
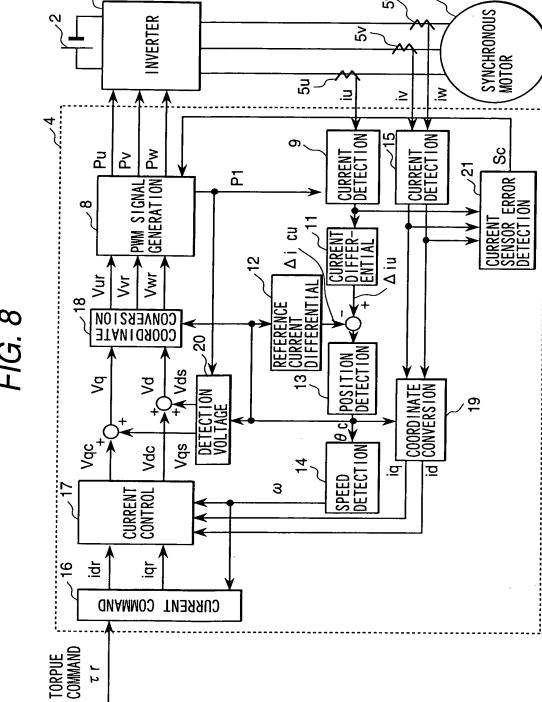


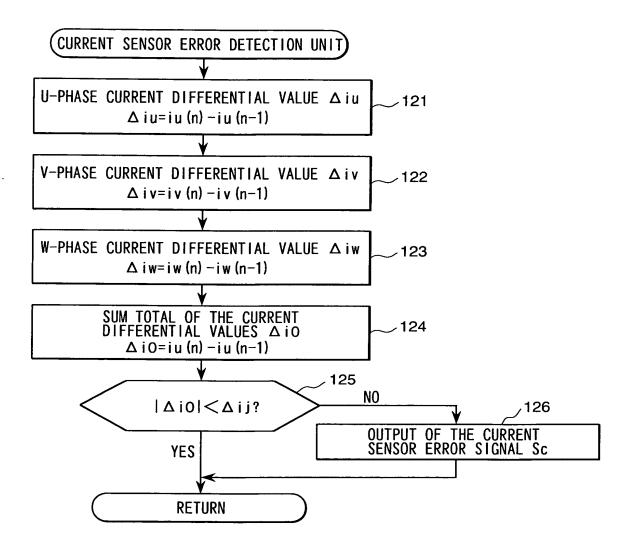
FIG. 9





က

## FIG. 10



SYNCHRONOUS MOTOR INVERTER CURRENT DETECTION Pu GENERATION Pw ₹ 7 Δicu \ Mr FIG. 11 COORDINATE COORDINATE δ\ 9 Vqs SPEED DETECTION <u>0</u> .₫ CURRENT CONTROL 3 ₫. 9 ₫ СИВВЕИТ СОММАИD TORPUE COMMAND 12

FIG. 12

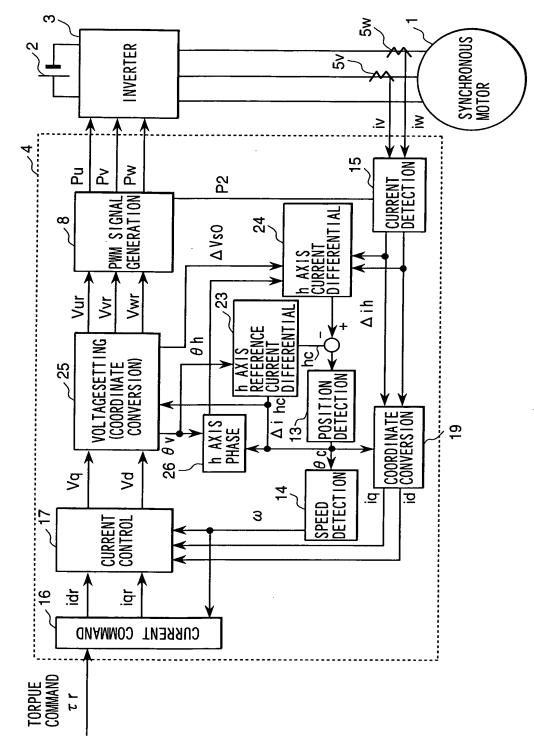


FIG. 13

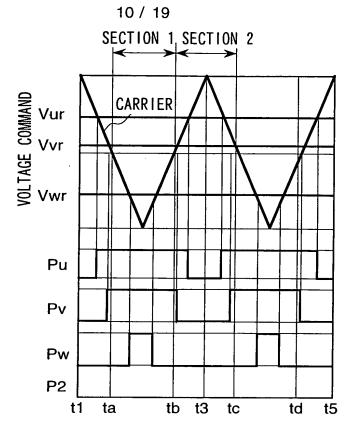
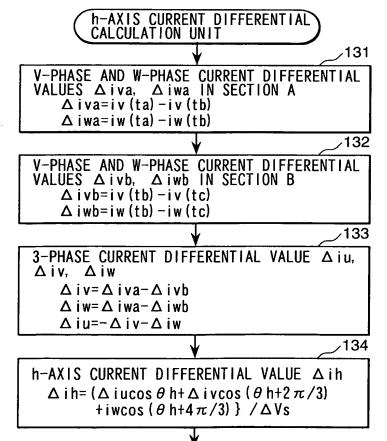
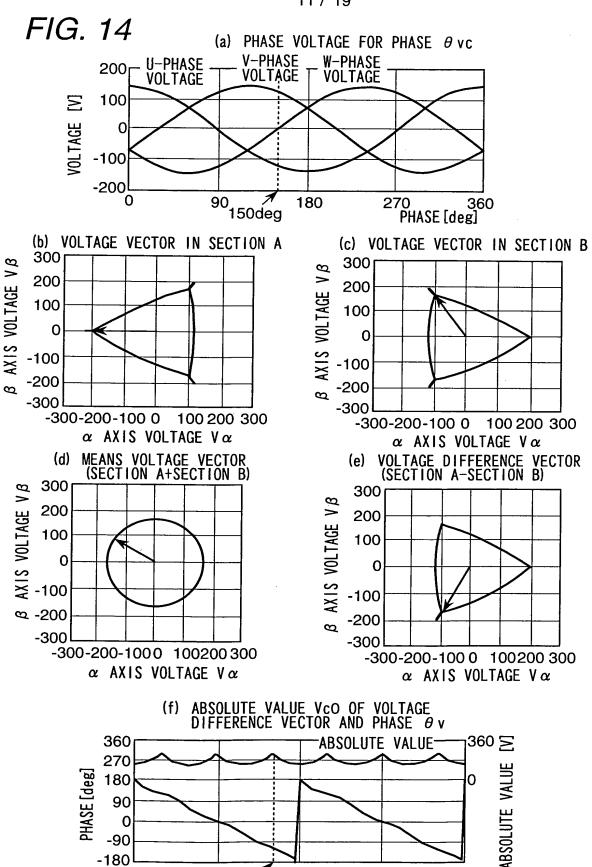


FIG. 16



RETURN

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150deg

PHASE [deg]

FIG. 15

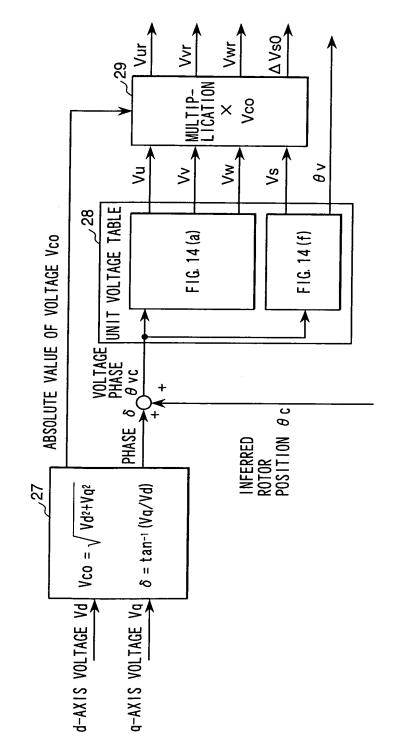


FIG. 17

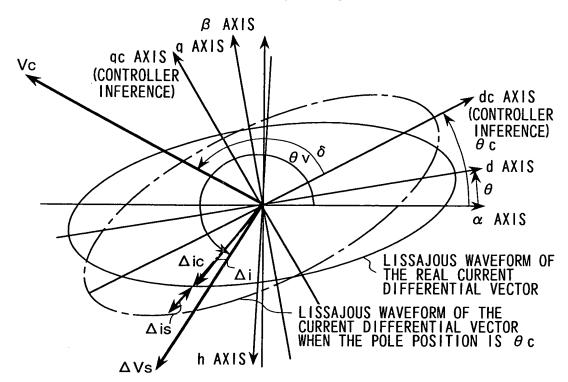
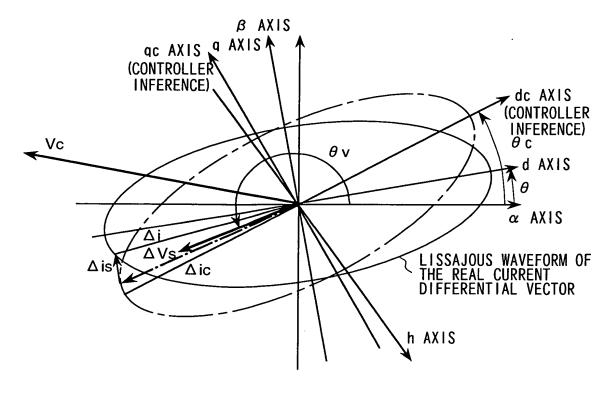
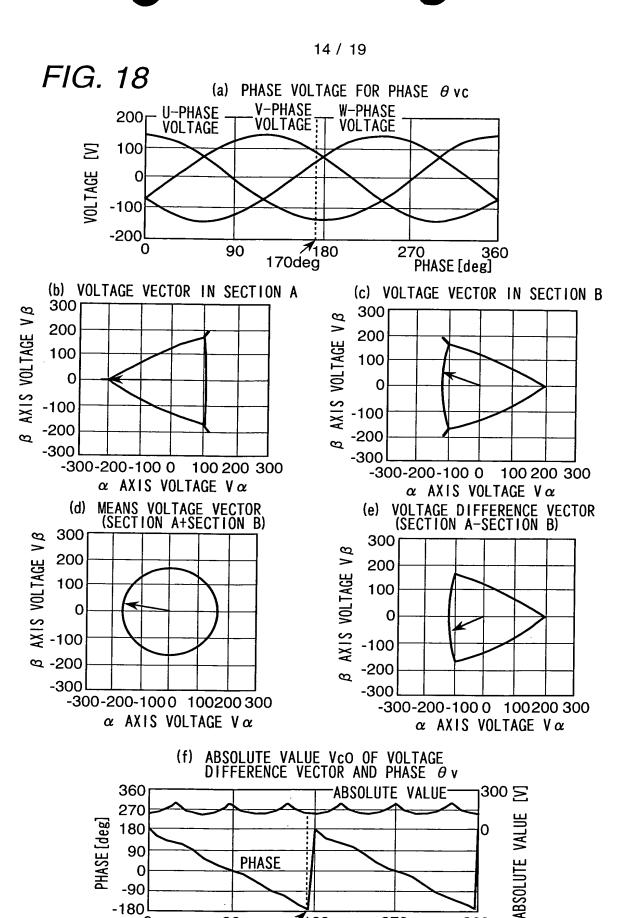


FIG. 19





**₹**180

170deg

270

360

PHASE [deg]

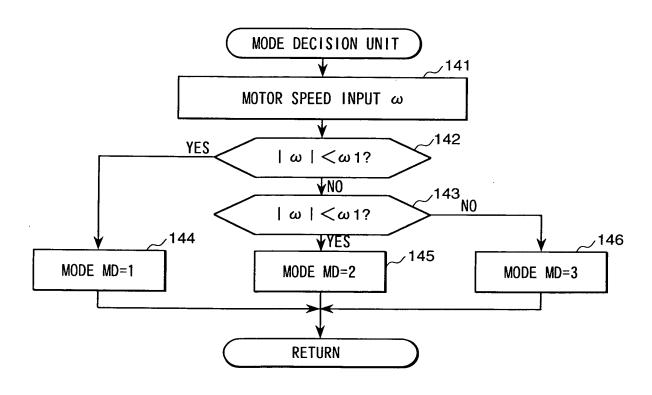
90

-180

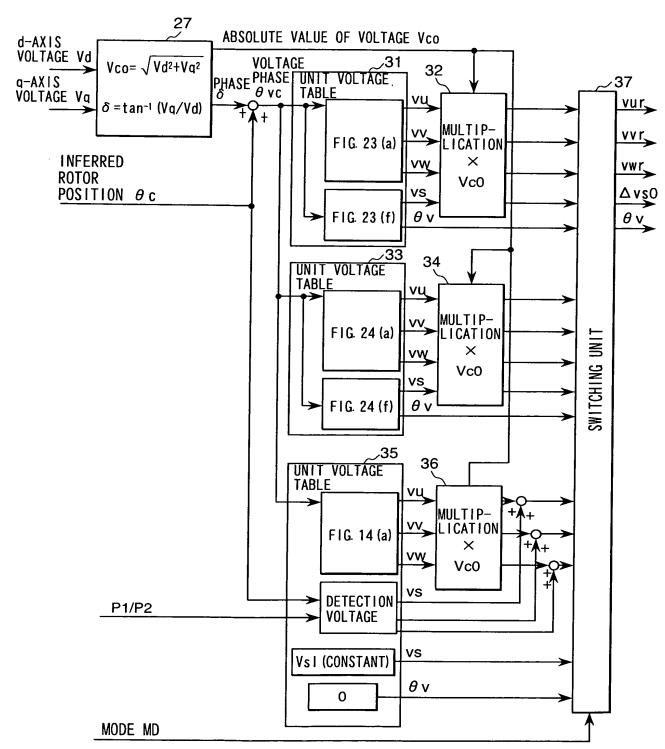
0

INVERTER 5∕ 5u P1/P2 15 CURRENT DETECTION Pu PWM SIGNAL PW GENERATION PW h AXIS CURRENT DIFFERENTIAL ω  $\Delta Vs0$ MD MD θh h AXIS REFERENCE CURRENT DIFFERENT VOLTAGESETTING (COORDINATE CONVERSION) <u>√</u> CONVERSION 5  $\theta$ h AXIS PHASE <del>13</del> MODE DECISION ဗ္ဗ SPEED ETECTION <u>م</u> **b** .酉 <u>0</u> 3 CURRENT CONTROL <u></u> ₫ 16 СИВВЕИТ СОММАИD TORPUE COMMAND 12

FIG. 21

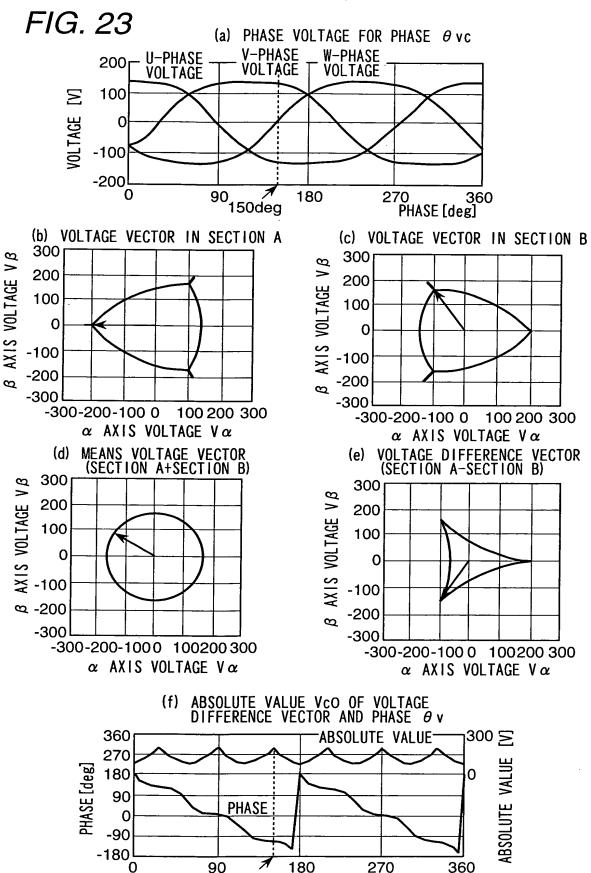


## FIG. 22





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150deg

PHASE [deg]

ΠÚ

